

A NEW SPECIES OF CALLIGASTER FROM THE PHILIPPINE ISLANDS

(Hymenoptera, Vespidae, Subfam. Zethinae)

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I have known for some time that the large Zethine wasp from the Philippines, listed thus far as *Calligaster cyanopterus*, is structurally distinct from the true Javanese *cyanopterus*. I intended to describe it in a revision of Philippine Diploptera. As this revision may be indefinitely postponed, the *Calligaster* is now described by itself.

Calligaster williamsi Bequaert, new species

Zethus (*Calligaster*) *cyanopterus* F. X. Williams, 1919, Rept. Expt. Sta. Hawaiian Sugar Planters' Assoc., Ent. Ser., Bull. 14, p. 157, figs. 88 (male), 89-94 (nest, egg, pupa). Not of de Saussure, 1852.

Length (h. + th. + t.1 + 2): female, 21 to 26 mm.; male, 20 to 22 mm.; of fore wing: female, 20 to 21 mm.; male, 20 mm.

Female. Head in front view (Fig. 1A) more nearly circular than in *cyanopterus*, conspicuously swollen at vertex and in upper outer orbits. First abdominal segment shaped much as in *cyanopterus*, but the ribbon-like portion of tergite (Fig. 1B) relatively wider and less parallel-sided, more flattened above and somewhat concave basally; first sternite also relatively wider. Punctuation much finer and very sparse on frons, vertex and outer orbits (in *cyanopterus* the punctures of these areas are larger than their intervals); also smaller and farther apart along hind margin of pronotum, over mesonotum and scutellum and in lower part of mesopleura. Longitudinal striation of median area of first tergite sharper and more regular than in *cyanopterus*, spreading fan-like; at base there are seven to ten fine ridges on either side of a conspicuous median ridge; as some of the ridges stop at the margin, new ones appear in the intervals of the remaining; grooves between ridges smooth (punctate in *cyanopterus*). Mid tibiae with two apical spurs (as in *cyanopterus*). Color of body and wings as in *cyanopterus*, but the clypeus and mandibles entirely black (in the two females of *cyanopterus* seen, the apical area of the clypeus and portions of the mandibles are ferruginous).

Male. Differs from *cyanopterus* in the same details of structure and sculpture as the female. Head (Fig. 1C) not conspicuously swollen; apical margin of clypeus more deeply emarginate than in *cyanopterus*. Thirteenth antennal segment (Fig. 1D)

shorter and more broadly rounded off. Clypeus and frons entirely black (in the two males of *cyanopterus* seen the clypeus bears a small dirty-yellow spot below the middle and there are two dirty-yellow dots on the inter-antennal transverse ridge).

C. williamsi seems to average larger than *C. cyanopterus*.

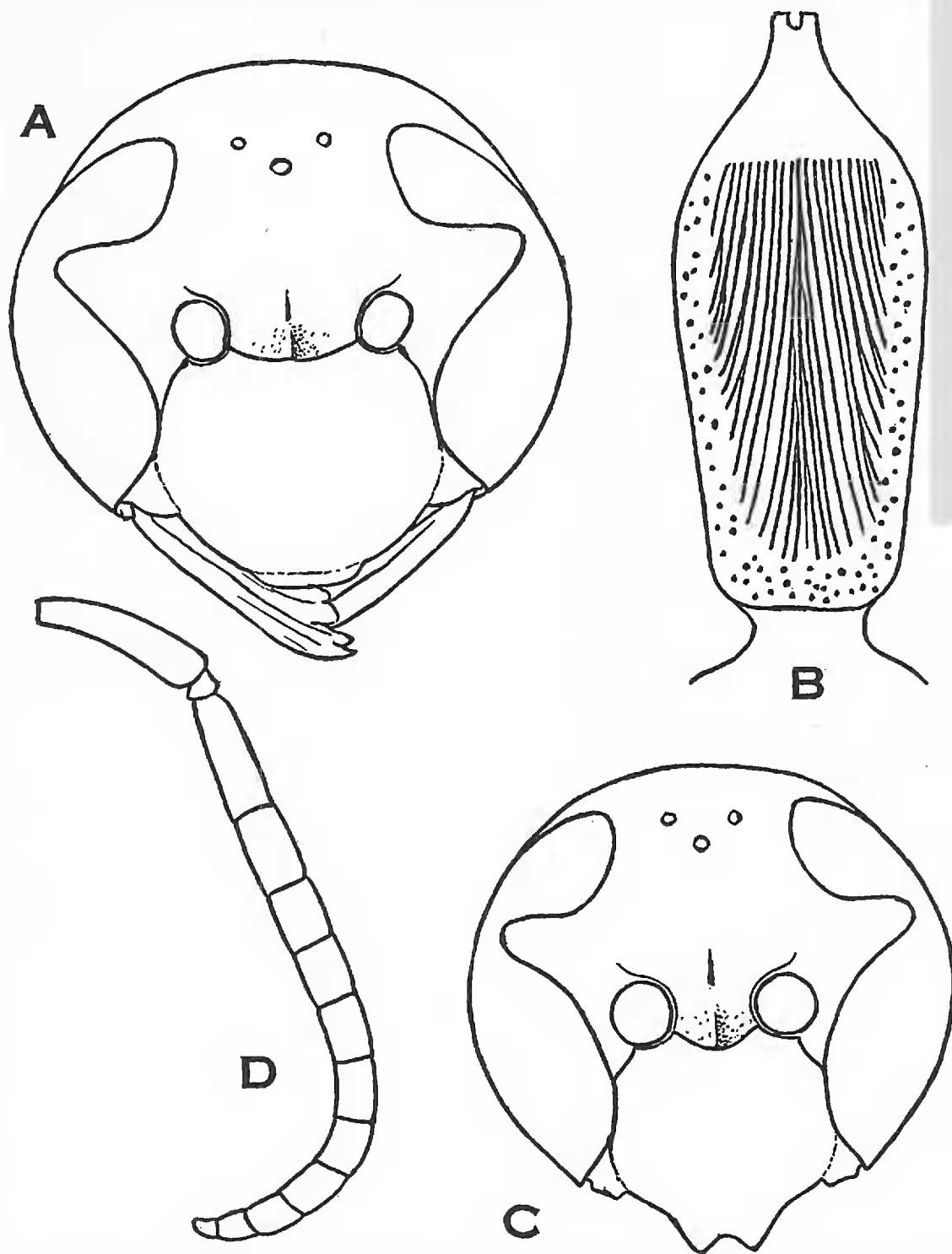


Fig. 1. *Calligaster williamsi* J. Bequaert: A, head of female; B, first abdominal tergite of female; C, head of male; D, antenna of male.

Holotype, female, and *allotype*, male, Los Baños, Luzon, Philippine Is. (F. X. Williams), Mus. Comp. Zoöl., Cambridge, Mass.

Numerous *paratypes* of both sexes at the Philippine Bureau of Science, the Dept. of Entomology of the College of Agriculture at Laguna, P. I., the American Museum of Natural History, the U. S. National Museum, the Academy of Natural Sciences, Philadelphia, and in Mr. J. van der Vecht's collection, from Los Baños, Luzon (D. Maulit; P. Bautista; M. M. Manis; A. Coronel; Pedroso; D. Feria, etc.); Zambales, Amuling, Luzon (R. C. McGregor); Mt. Maquiling, Luzon (A. Durano); Bayombong, Luzon; Lamao, Bataan, Luzon (H. M. Curran); Montalban Gorge, Rizal, Luzon (W. Schulze); and Puerta Galera, Mindoro (R. P. Cowles).

C. williamsi should not be confused with a species of *Pareumenes*, of the Philippines (apparently undescribed), of the same color and much the same shape, having even the median longitudinal striation of the first tergite. The *Pareumenes*, however, has long, knife-like mandibles and a quadridentate propodeum.

Calligaster de Saussure differs from *Zethus* in the shape of the first abdominal segment, the tergite of which bears a median dorsal area covered with longitudinal striæ. The mid tibiæ have two apical spurs in all species I have seen. In the male the antennæ have thirteen segments, but the thirteenth is normal, straight, not bent back as a hook nor curled up. The genus is strictly Indo-Malayan. *C. cyanopterus* de Saussure (1852) is probably restricted to Java, *Zethus erythrostomus* "Cameron" Meade Waldo (1914) and *Calligaster javanus* Gribodo (1891) being synonyms; its nest and habits were described by H. O. Forbes (1885, *A Naturalist's Wanderings in the Eastern Archipelago*, pp. 72-73), G. E. Frisby (1919) and J. van der Vecht (1934). The supposed *cyanopterus* recorded from Celebes, by F. Smith (1858), and from Sumatra, by Gribodo (1891), were certainly different and probably undescribed species. *C. williamsi* is restricted to the Philippines, where its habits were investigated by F. X. Williams (1919). *Zethus himalayensis* Cameron (1904), of Sikkim, and *Zethus etchellsii* Cameron (1909), of Borneo, the types of which I have seen at the British Museum, appear to be true *Calligaster*. Both are specifically distinct from either *cyanopterus* or *williamsi*. None of the other described Indo-Malayan Zethinæ belong in *Calligaster*.

The type of *Calligaster* is *Calligaster cyanopterus* de Saussure, by designation of Ashmead (1902, *Can. Ent.*, 24:205).